INTRODUCTION

More than two thousand species of higher plants are known to live parasitically on other plants. These parasitic plants produce flowers and seeds similar to those produced by the plants they parasitize.They belong to several widely separated botanical families and show varying degrees of parasitism. Some usually called hemiparasites while others are total parasites. These plants attach to the host in the roots, branches or stems and cause diseases mainly by depriving their hosts of the nutrients and water which are diverted and utilized by them.

Broomrape (Orobanche spp.)are total root parasites affecting tobacco, eggplant tomato , cabbage, cauliflowers turnip and many solanaceous and cruciferous plants all over the world. Broomrape species (Orobanche crenata) which parasitizes on broad bean (Vicia faba L.) in Egypt, causes great losses in the vegetative growth and also in the seed yield.

Broad bean is considered one of the main food crops for human beings and also for feeding animals in Egypt. It covers an area of 289,530 * feddans yielding 1,901,178 Erdab whereas, Beheira Governorate alone cultivate nearly 23707 feddans in winter season yielding 213,806 Erdab of broad bean seeds in 1982-1983 season .

* Data of Agricultural Economy and statistics Department, Ministry of Agriculture, A.R.E., Amen,1982-1983

Serveral workers in the past tried to control this peresite by using herbicides, insecticides or by biological methods by insects to save and protect the crop of broad beam, but still no control method is totally effective because seeds of this peresite is the main factor which disseminate or stay in the soil and cause new infections for several years.

One of the approaches to suggest for control methods of this peresite , is preventing the vegetative growth to continue for flowering by using indole acetic acid as a growth regulator with glyphosate as a herbicide .

The present studies were undertaken and carried out in the laboratory and greenhouse of Botany Department, Faculty of Agriculture at Fayoum, Cairo University from October, 1980 to August, 1984 with the following objectives:

1- To study the distribution of the peresite in the broad beam fields at Fayoum Governorate.
2- To study the effect and role of the associated fungi with the plant peresite (Orobanche cremata) on broad beam in Egypt especially in Fayoum area.
3- To study the effect of different control methods of broomrape especially by using herbicides, and study also how to avoid the harmful effect of these herbicides, to protect the broad beam plants.

4- To know the components of chemical composition of the host and paresite to help other studies for effective control measures.

5- To study also the biological control of broomrape by using fungi isolated from different parts of the plants.
